

REMARKS

Applicant has carefully reviewed and considered the contents of the Office Action dated August 29, 2001. Reconsideration is respectfully requested in view of the foregoing amendments and the comments set forth below.

By this Amendment, the title of the invention is changed to that suggested in the paragraph 1 of the Action, the specification is editorially revised adding the appropriate headings; claims 1-12 are cancelled; and new claims 13-25 are presented. Accordingly, claims 13-25 are pending in the instant application.

Claims 1-12 were objected to for the reasons set forth in paragraph 3 of the Action and were rejected under 35 U.S.C. §112, second paragraph as being indefinite for the reasons set forth in paragraph 4 of the Action. New claims 13-25 have been drafted based on the subject matter of original claims 1-12 taking into consideration the Examiner's comments. Accordingly, it is respectfully submitted that claims 13-25 are fully definite under 35 U.S.C. §112, second paragraph and that the claims objections have been obviated.

Claims 1-12 were rejected under 35 U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,076,012 to Swanson, et al. (hereinafter referred to as Swanson) for the reasons spanning pages 3 and 4 of the Action. As stated above, claims 1-12 have been cancelled and thus this rejection is rendered moot. However, since new claims 13-25 are based on original claims 1-12, the following comments are submitted.

Applicant's invention is directed to an electrode arrangement for endocardial discharge of defibrillation pulses in the atrium or a ventricle of the heart comprises an electrode lead having an undivided proximal end, a distal end and a splitter from which at least two branches of the electrode lead extend to the distal end where each branch has a central core extending from the

splitter of the electrode lead and the core is made of a memory metal structure to enable good contact to be maintained between each branch and a wall of the atrium or the ventricle; and a plurality of electrically conductive surface portions disposed on the at least two branches where the plurality of electrically conductive surface portions are electrically connected by way of the electrode lead to an electrical pulse-discharging device at the proximal end of the electrode lead. Previously known electrode arrangements employed a larger area to transmit the necessary cardio-version energy to the cardiac tissue and the production and implantation of these known electrode arrangements involved a high cost. In addition, known electrode arrangements ablate cardiac tissue resulting in serious stresses, such as pain, for the patient.

Swanson is directed to structures for supporting operative therapeutic or diagnostic elements within an interior body region and is well suited for use in the field of cardiac ablation. This is in contrast to the claimed invention which increases the accuracy of the diagnosis of any kind of arrhythmia, especially the fibrillation of atria and ventricles. The embodiment shown in Figures 56 and 58 of Swanson disclose two branches extending from the distal to a proximal end within a sheath 370. This is not Applicant's claimed invention. Contrary to the deployed position shown in Fig. 56 of Swanson, Applicant's claimed electrode arrangement comprises branches, which belong to the same solid, undivided lead as shown in the figures of the instant application, especially Figs. 2(a)-(b), 3(a)-(c) and 6(a)-(d). As a result of the claimed splitter from which at least two branches of the electrode lead extend to the distal end and the electrode lead having an undivided proximal end of the claimed invention, decontamination of the electrode lead may be effectively avoided.

In contrast, Swanson discloses two separately guided electrodes which, when deployed branch out of the sheath 370. Nowhere does Swanson disclose, teach or suggest an electrode

lead having an undivided proximal end and a splitter from which at least two branches of the electrode lead extend as claimed and clearly disclosed by Applicant. As is well known in patent law, a reference must disclose each and every claimed element in order to anticipate the same. The Action's position that Swanson discloses two branches and that each electrode is electrically coupled with individual wires does not compensate for the missing undivided proximal end and splitter. Accordingly, it is respectfully submitted that claims 13-25 cannot be anticipated by Swanson.

The disclosed system is designed for being embodied in implantable devices and it may also be used during electrophysiologic studies for treating inappropriate and unexpected fibrillations. The claimed electrode system employs a metal with a memory which experiences a change in shape by virtue of being heated above a given temperature (page 13, lines 24-26, Fig. 7, and claims 15-18). Nowhere does Swanson disclose a temperature sensitive metal support. In contrast, Swanson discloses precurving the metal support so that when the sheath is retracted from the electrode branches, two branches are formed. Similarly, Swanson does not disclose means for heating the memory member structure so that this shape of the memory member structure can change to maintain good contact as set forth in new claim 15. Accordingly, it is respectfully submitted that Swanson cannot anticipate the memory member structure of the claimed invention and that dependent claims 15-18 should be allowed for this reason.

Finally, Swanson does not disclose the specific structure of the claimed arrangement as set forth in new claims 14-25. In particular, the one-piece central core in the form of a spring element as set forth in claim 14 is not disclosed or suggested by Swanson. Likewise, an electrode lead split into three different branches is not disclosed or suggested as set forth in claims 19 and 25. In addition, Swanson fails to disclose, teach or suggest an electrode

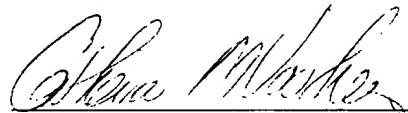
arrangement where each branch has an equal number of electrically conductive surface portions disposed thereon and each electrically conductive surface portion of septal branch is unambiguously associated with an electrically conductive surface portion of the lateral branch as set forth in claims 20-23. Accordingly, these dependent claims are believed patentable for the reasons set forth above with respect to independent claim 13 and for the features stated above.

In view of the foregoing amendments and remarks, it is respectfully submitted that claims 13-25 are patentable as the art of record because Swanson fails to disclose, teach or even suggest the electrode lead having an undivided proximal end and a splitter from which at least two branches of the electrode lead extend the distal end as set forth in independent claim 13. Accordingly, Applicant requests the issuance of a Notice of Allowability indicating that claims 13-25 are allowed over the prior art of record.

Should the Examiner believe that a conference would advance the prosecution of this Application, the Examiner is requested to telephone the undersigned counsel to arrange such a conference.

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Respectfully submitted,



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